

**DON BOSCO HIGH SCHOOL, PANJIM**  
**DON BOSCO COMPETITIVE ADVANTAGE TEST (DB-CAT) 2024-25**  
**27 FEBRUARY 2025**  
**CLASS VIII**

**A. QUESTION PAPER RELATED INSTRUCTIONS**

Before you begin, check if all 80 questions have been printed on your question paper.

DB-CAT 24 - 2025 consists of a total of 80 questions as follows:

**ENGLISH – Q Nos. 1-15**

**MATHEMATICS- Q Nos. 16-30**

**SCIENCE - Q Nos. 31-45**

**HISTORY – Q Nos. 46 -55**

**GEOGRAPHY – Q Nos. 56 – 65**

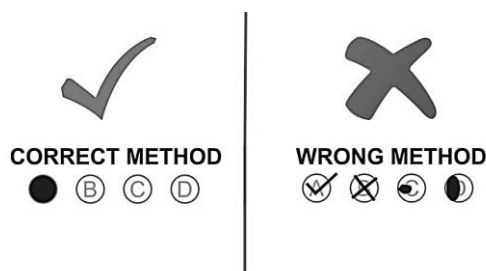
**G.K AND CURRENT AFFAIRS Q Nos. 66 – 75**

**LOGIC AND REASONING – Q Nos. 76-80**

1. Each question carries 1 mark.
2. Total duration of the test is 90 minutes
3. All questions are compulsory.
4. There is no negative marking for incorrect answers.
5. You may take away the question paper after the examination.

**B. OMR SHEET RELATED INSTRUCTIONS:**

1. Begin by writing your name and other required information in the space provided at the top of the OMR sheet.
2. Your signature must be entered in the box labelled as Candidate's signature.
3. Each Multiple Choice Question (MCQ) has four options a) b) c) and d), of which only one is the correct answer.
4. Before marking your answers, carefully read each question and review all four options.  
Changing answers is not permitted.
5. Once you are sure of your answer, use a dark pen ( **BLUE OR BLACK BALL POINT PEN** ) to mark your answers on the provided OMR sheet.  
Answers marked with pencil will not be accepted
6. Fully darken the bubble corresponding to your chosen option, as shown in the example below.



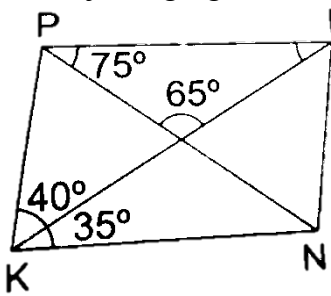
7. Responses with more than one darkened bubble or those not darkened as per instructions will be considered invalid.
8. Avoid making any stray marks on the sheet.
9. No rough work should be done on the OMR sheet. All rough work must be done in the space provided on the question paper. Additional paper for rough work will be provided by the invigilator on request.
10. Do not use a marker or whitener on the OMR sheet.



12. Choose the correct conjunction to complete the sentence:  
**"He didn't study hard, \_\_\_\_\_ he failed the exam."**  
 a) but    b) because  
 c) so     d) and
13. Choose the correctly punctuated sentence:  
 a) My brother who lives in New York is coming to visit.  
 b) My brother, who lives in New York, is coming to visit.  
 c) My brother who lives in New York, is coming to visit.  
 d) My brother, who lives in New York is coming to visit.
14. Choose the correct sentence in indirect speech:  
 a) She says, "I am going to the market."  
 b) She said that she is going to the market.  
 c) She says that she is going to the market.  
 d) She said, "I am going to the market."
15. Choose the correct form of the verb to complete the sentence:  
**"They \_\_\_\_\_ their homework already."**  
 a) has done    b) doing  
 c) did     d) have done

# MATHEMATICS

16. The volume of a cube whose edge is  $3x$  m is \_\_\_\_\_  
 a)  $27x^2$  cubic m                      b)  $18x^2$  cubic m  
 c)  $18x^3$  cubic m                      d)  $27x^3$  cubic m
17. Pie chart is also called as \_\_\_\_\_  
 a) Bar graph                                  b) histogram  
 c) Circle graph                                d) Line graph
18. A quadrilateral with two pairs of parallel sides is \_\_\_\_\_  
 a) kite    b) parallelogram  
 c) trapezium                                     d) None
19. A 3D figure which does not have any edge or vertex is a \_\_\_\_\_  
 a) sphere    b) cylinder  
 c) Cone    d) circle
20. In the adjoining figure, PINK is a parallelogram. The  $\angle PIK$  is \_\_\_\_\_



- a)  $25^{\circ}$  b)  $40^{\circ}$   
c)  $80^{\circ}$  d)  $35^{\circ}$
21. Which of the following is a perfect square number?  
a) 1442 b) 1445  
c) 1521 d) 1518
22. The solution of the equation  $4x = -2x - 7$  is \_\_\_\_\_  
a)  $X = \frac{-6}{7}$  b)  $X = \frac{-7}{6}$   
c)  $X = \frac{-4}{7}$  d)  $X = \frac{-2}{7}$

23. The cube root of 19683 is \_\_\_\_\_  
a) 37 b) 29  
c) 27 d) 33
24. 24 % of 150 is \_\_\_\_\_  
a) 48 b) 26.75  
c) 36 d) 46
25. Which point lies only on y-axis?  
a) (-2,0) b) (2,0)  
c) (0, -2) d) (2, -2)
26. Size of a plant cell is 0.00001275m. Expressed in scientific notation in centimetres, it is \_\_\_\_\_  
a)  $1.275 \times 10^{-5}$  b)  $1.275 \times 10^{-3}$   
c)  $1.275 \times 10^{-7}$  d)  $1.275 \times 10^{-8}$
27. A boy attempts  $x + y$  sums, of which only  $y - 2z$  are correct. The number of wrong sums is \_\_\_\_\_  
a)  $-x + 2z$  b)  $-2y - 2z$   
c)  $x + 2z$  d)  $2y + 2z$
28. If the sum of two consecutive numbers is 71 and one number is  $x$ , then the other number is \_\_\_\_\_  
a) 36 b) 30  
c) 35 d) 32
29. The height of a cylinder is 14cm and its curved surface is  $594 \text{ cm}^2$ . If  $\pi = \frac{22}{7}$ , then radius of its base is \_\_\_\_  
a) 6.65cm b) 6.75 cm  
c) 6.85 cm d) 6.95 cm
30. If 3 pieces of table cloth cost Rs. 112.50, then the number of pieces of table cloth available for Rs.487.50 is \_\_\_\_\_  
a) 11 b) 13  
c) 15 d) 17

## SCIENCE

31. Consider the following two statements:  
Statement A: The noise of bursting crackers is unpleasant to the ears.  
Statement B: Sound does not need a medium to travel.  
Which of the following options is correct regarding these statements?
- a) Only statement A is correct  
b) Only statement B is correct  
c) Both statements are correct  
d) Neither statement is correct
32. Which of the following is *not* a property of sound?
- a) Amplitude  
b) Refractive index  
c) Frequency  
d) Speed
33. 2, 4-D is an example of a/an \_\_\_\_\_.
- a) Insecticide  
b) Pesticide  
c) Weedicide  
d) Fertilizer
34. In which of the following liquids will fermentation *not* occur?
- a) Barley water  
b) Grape fruit  
c) Distilled water  
d) Sugarcane juice
35. Hepatitis A is a \_\_\_\_\_ disease.
- a) Viral  
b) Bacterial  
c) Protozoan  
d) Fungal
36. Identify a natural polymer.
- a) Rayon  
b) Nylon  
c) Acrylic  
d) Cellulose

37. Which of the following elements forms an oxide that contributes to acid rain?

- a) Sodium                      b) Carbon  
c) Copper                     d) Lithium

38. A petroleum product used as a fuel in homes is \_\_\_\_\_.

- a) CNG    b) LPG  
c) Biogas                                        d) Coal Gas

39. A wet cloth catches fire slower than a dry cloth because \_\_\_\_\_.

- a) A wet cloth has a higher ignition temperature
- b) Water does not change the ignition temperature
- c) A dry cloth has a higher ignition temperature
- d) A wet cloth has a lower ignition temperature

40. Bacteria and blue-green algae are examples of \_\_\_\_\_.

- a) viruses  
b) prokaryotes  
c) eukaryotes  
d) animal cells

41. Asexual reproduction takes place in \_\_\_\_\_.

- |         |          |
|---------|----------|
| a) fish | b) hydra |
| c) dogs | d) man   |

42. Which part of the male reproductive system produces both sperm and sex hormones?

- a) testes                                      b) penis  
c) urethra                                    d) seminal vesicles

43. When a doormat is dusted, the dust particles fly off and fall to the ground due to \_\_\_\_\_.

- a) Friction  
b) Muscular force  
c) Gravitational force  
d) Electromagnetic force

44. The wheels of a vehicle are circular because \_\_\_\_\_.

- a) Rolling friction is more than sliding friction
- b) Static friction is less than rolling friction
- c) Rolling friction is more than static friction
- d) Rolling friction is less than sliding friction

45. Which of the following devices uses ball bearings, and why?

- a) Lenses; to increase power  
b) Ceiling fan; to decrease friction  
c) Television; to decrease current  
d) Tube light; to increase brightness

## HISTORY

46. In 1856 , Governor General \_\_\_\_\_ decided that Bahadur Shah Zafar would be the Last Mughal King after his death.

- a) Bennett                      b) Dalhousie  
c) Canning                     d) William

47. Rani Channamma led an anti-British movement in 1824 in

- a) Salbai                                  b) Panipat  
c) Satara                                 d) Kitoor

48. In March 1859, thousands of ryots in \_\_\_\_\_ refused to grow indigo.

- a) Bihar                      b) Bengal  
c) Nagpur                  d) Jhansi

49. The British Parliament passed a new Act in \_\_\_\_\_ transferring the powers of the East India Company to the British Crown.

- a) 1857                      b) 1848  
c) 1861                      d) 1858

50. In 1764, the \_\_\_\_\_ was invented by John Kaye which increased the productivity of the traditional spindles.
- a) spinning wheel                                      b) water frame  
c) spinning jenny                                        d) power loom
51. Brahmo Samaj, a reform association, was founded by \_\_\_\_\_ in 1828 in Calcutta.
- a) Ramakrishna Paramahansa                      b) Ishwar Chandra Vidyasagar  
c) Dayananda Saraswati                             d) Raja Rammohan Roy
52. Which traditional art form in the 18th century served as a means of displaying lavish lifestyles, wealth, and status?
- a) landscape    b) sculpture  
c) portraiture     d) calligraphy
53. Secularism refers to the separation of \_\_\_\_\_ from the state.
- a) economy    b) religion  
c) politics    d) education
54. Every citizen of India can approach the Supreme Court or the High Court if they believe that their \_\_\_\_\_ have been violated.
- a) Property Rights                                      b) Voting Rights  
c) Employment Rights                                d) Fundamental Rights
55. The right to be informed at the time of arrest about the offence for which a person is being arrested is stated in \_\_\_\_\_ of the Constitution.
- a) Article 48    b) Article 22  
c) Article 21    d) Article 50

## GEOGRAPHY

56. Which of the following methods is most effective in preventing soil erosion on steep slopes?  
a) Shelter belts                                      b) Terrace cultivation  
c) Mulching    d) Rock dam
57. Biotic resources are \_\_\_\_\_.  
a) made by human beings                      b) derived from non-living things  
c) derived from living things                  d) derived from physical factors
58. Which country is the world's leading producer of coffee?  
a) India    b) Brazil  
c) Bihar    d) Russia
59. Horticulture means \_\_\_\_\_.  
a) growing of fruits and vegetables          b) growing of wheat  
c) primitive farming                              d) growing of grapes
60. Which of the following is not commercial farming?  
a) Plantation agriculture                         b) Organic farming  
c) Mixed farming                                  d) Grain farming
61. Which one of the following industries is known as the ‘sunrise industry’?  
a) Iron and steel industry                        b) Cotton Textile  
c) Information Technology                      d) Cement Industry
62. The uneven distribution of population in the world is primarily due to variations in \_\_\_\_\_.  
a) land and climate                                b) climate  
c) vegetation                                        d) settlement
63. What is the lowermost layer of soil called?  
a) sub soil    b) parent rock  
c) weathered rock                                 d) top soil

64. The resource whose quantity is known is called \_\_\_\_\_.

- a) potential resource                      b) actual resource  
c) stock                                        d) Biotic resource

65. Coal is an example of \_\_\_\_\_ resource.

- a) renewable                      b) non-renewable  
c) human                         d) potential

## G.K/ CURRENT AFFAIRS

66. Which Indian city is known as the Pink City?

- a) Udaipur  
b) Jaipur  
c) Jodhpur  
d) Agra

67. Who invented the telephone?

- a) Alexander Graham Bell      b) Thomas Edison  
c) Nikola Tesla                  d) Isaac Newton

68. Who is the current President of India?

- a) Ram Nath Kovind                      b) Pratibha Patil  
c) Droupadi Murmu                     d) Venkaiah Naidu

69. Which country hosted the 2024 Summer Olympics?

- a) Japan                      b) USA  
c) France                     d) China

70. Which spacecraft recently made a successful landing on the moon?

- a) Mangalyaan                      b) Chandrayaan-3  
c) Apollo-11                        d) Gaganyaan

71. Which country is known as the *Land of The Rising Sun*?

- a) Japan  
b) China  
c) Nepal  
d) Bhutan

72. Which country won the FIFA World Cup in the year 2022?

- a) Morocco  
b) France  
c) Argentina  
d) Croatia

73. Who developed the theory of relativity?

- a) Issac Newton                      b) Albert Einstein  
c) Thomas Edison                  d) James Chadwick

74. Which is the smallest country in the world?

- a) Malta  
b) Tuvalu  
c) Luxembourg  
d) Vatican City

75. Who was known as the ‘Iron Man of India’?

- a) Mahatma Gandhi                      b) Ram Prasad Bismil  
c) Sardar Vallabhbhai Patel          d) Rani of Jhansi

## LOGIC AND REASONING

76. If 'rain' is called 'pink', 'pink' is called 'cloud', 'cloud' is called 'water', 'water' is called 'breeze', and breeze is called 'moon', what do you wash your hands with?

- a) Water    b) Rain  
c) Breeze    d) Moon

77. Aurea is sitting at 15<sup>th</sup> position if counted from the right end of a row and sitting at 9<sup>th</sup> position if counted from left end of the same row. How many people are sitting in that row?

- [illegible]

78. Tina is older than Riya but younger than John. Riya is older than Sam. Who is the youngest?

- a) Tina

- c) John    d) Sam

79. If  $\text{apple} + \text{apple} + \text{apple} = 18$  and  $\text{apple} + \text{orange} = 12$  and  $\text{orange} + \text{lemon} = 14$ , then what is the value of  $\text{lemon}$ ?

- a) 6                      b) 8  
c) 10                     d) 12

80. If VELOCITY = @53#1\*\$9, AROUSE =!&#4%5 then VORACIOUS = ?

- a) @#&!1\*#4%                      b) 9#&!1\*#4!  
c) @#&!1\*#4!                        d) @#&!1\*#49

\*\*\*\*\*Space for Rough work\*\*\*\*\*